

REMARKS

Claims 1-19 and 27 are pending in the application. This response is accompanied by the Supplemental Declaration of Scott Huffer (“*Suppl. Huffer Decl.*”) under 37 C.F.R. § 1.132.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-19 and 27 stand rejected for the reasons set forth in the Office Action mailed January 31, 2005. That Office Action asserted that the claims were obvious over the theoretical combination of U.S. Pat. No. 5,792,549 to Wilkie, U.S. Pat. No. 5,888,649 to Curatolo, and U.S. Pat. No. 4,810,745 to Pike. It is asserted in the Office Action that Wilkie describes a packaging film comprising a polypropylene substrate coated with a cold-seal receptive layer and a cold-seal release layer having a non-migratory slip agent. The Office Action further states that this non-migratory slip agent is deemed to be a reacted-in slip agent. It is acknowledged in the Office Action that Wilkie fails to teach the presence of the non-migratory slip agent in an energy-cured release layer. However, the Office Action asserts that this feature would have been obvious in light of an energy-cured release layer taught by Curatolo. Pike is cited for the proposition that it would have been obvious to provide a cold-seal coating having rubber.

It is respectfully submitted that Wilkie does not describe a reacted-in slip agent as recited in independent claims 1 and 10. Like all claim terms, the element “reacted-in” should be given the ordinary and customary meaning attributed to the term by those of ordinary skill in the art. *Sunrace Roots Enter. Co. v. SRAM Corp.*, 67 USPQ 2d 1438, 1441 (Fed. Cir. 2003); *see also*, MPEP 2111.01 (II). Based on its ordinary and customary meaning in the art, one skilled in the art would understand that a compound described as “reacted-in” is chemically bonded to one or more of the compounds in its surrounding environment. (*Suppl. Huffer Decl.* ¶ 5.) With specific reference to claim 1, one skilled in the art would understand that the reacted-in slip agent is

chemically bonded to the polymer network of the energy-cured release layer. (Suppl. Huffer Decl. ¶ 7.)

The ordinary and customary meaning that those of skill in the art would attribute to the term “reacted-in” is consistent with the description provided in the specification. (Suppl. Huffer Decl. ¶ 8.) For example, on page 6, the specification describes that when exposed to an electron beam from a suitable source, acrylate monomers within the coating react into the epoxy acrylate chains to form cross-links. The last paragraph on page 6 and continuing onto page 7 indicates that various desirable additives, such as slip agents, tend to become “reacted-in” during polymerization of the coating. Given a fair reading of these and other passages in the specification, one skilled in the art would understand that becoming “reacted-in” during polymerization is the act of becoming chemically bonded to the polymer network. (Suppl. Huffer Decl. ¶ 9.) Because the ordinary and customary meaning of the term “reacted in” is that the compound so described is chemically bonded to the polymer network, and because the description in the specification is consistent with that meaning, the term “reacted in” must be interpreted to mean that the slip agent of claim 1 is chemically bonded to the polymer network of the coating.

Wilkie does not describe slip agents that are reacted-in, as that term is understood by one of skill in the art. Instead, the non-migratory slip agents disclosed in Wilkie are merely suspended in the cold-seal release layer to provide mechanical slip properties. (May 2 Huffer Decl. ¶ 12.) The mechanical slip agents are not reacted into the layer, and would not become reacted-in if energy were applied to the layer. *Id.* Wilkie does not describe the slip agent, as recited in claim 1, because the non-migratory slip agents of Wilkie are not “reacted-in”.

Wilkie also does not suggest the use of a reacted-in slip agent in an energy-cured coating. It is not only true that the Wilkie slip agents would fail to react into a polymer network if subjected to an energy curing source, but also that the layer in which the Wilkie slip agents are found is not energy-curable. The act of energy curing involves the polymerization of oligomers and monomers to form a solid layer from a coating that was initially applied as a liquid. (Suppl. Huffer Decl. ¶ 6.) The non-migratory slip agents of Wilkie are not provided in a radiation curable coating. Instead, the slip agents of Wilkie are found in the cold-seal release layer, which is a polymeric blend of ethylene-butylene copolymer with polypropylene, polyethylene or another copolymer. This layer can be coextruded with the other polymer layers of the Wilkie film using conventional equipment. (See, Col. 9, lines 59-66.) The cold-seal release layer of Wilkie is not coated as a liquid onto a substrate and then cured to form a solid layer. Because the slip agents of Wilkie would not react into a polymer network during an energy curing step, and because they are not found in an energy-curable coating, Wilkie provides no suggestion to include a reacted-in slip agent in an energy-cured coating.

As discussed above and in more detail in the Applicants' response of May 2, 2005, the reacted-in slip agents of claims 1 and 10 are chemically bonded to the polymer network formed during the curing step. The reacted-in nature of the slip agents provides unexpected and advantageous properties. The inclusion of such reacted-in slip agents provides the coating with high gloss and other aesthetically pleasing qualities, while serving as a release layer for the cold-seal cohesive. Thus, when the packaging material of the invention is stored in a roll and subsequently unwound, the cold-seal cohesive does not offset or block onto the energy-cured coating, but instead remains intact attached to the inner side of the substrate. Thus, the cohesive material is not deadened as a result of contact and storage with the energy-cured coating. Wilkie

simply provides no description or suggestion that reacted-in slip agents would be useful for this purpose, or that they would provide any other advantageous properties when used in combination with a cold-seal cohesive.

The disclosures of Curatolo and Pike fail to remedy the deficiencies of Wilkie with respect to claims 1 and 10 because they also fail to suggest or describe a reacted-in slip agent. In addition, none of Wilkie, Curatolo or Pike provide a proper suggestion or motivation to provide an energy-cured release coating in combination with a cold-seal cohesive, as recited in claims 1, 10 and 27. As noted above, Wilkie does not describe or suggest any type of energy-cured coating.

Curatolo discloses the use of a radiation-curable release layer only in combination with certain adhesives, including hot melt, pressure sensitive adhesives and any adhesive "which forms an aggressive adhesive bond to the substrate and to any other surface to which the substrate is adhered." (See, Col. 16, lines 59-64.) Neither Curatolo, nor any other reference of record, provides any description or suggestion that an energy-cured coating could be used as a release layer for a cohesive, which has different bonding properties than the adhesives of Curatolo. (Suppl. Huffer Decl. ¶ 11.) Because the adhesives described in Curatolo are of a different nature than the cohesive presently claimed, Curatolo provides no suggestion that an energy-cured coating can be used as a release layer for a cohesive.

Indeed, the Board of Patent Appeals and Interferences has held that the interaction between two layers in a composite film is unpredictable, and that one skilled in the art cannot simply substitute one material for another with a reasonable expectation of success in obtaining a film having ultimate film performance. *Ex Parte Bader*, pp. 6-7, 2002 WL 31083124 (Bd. Pat. App. & Int. Feb. 4, 2002) (unpub.) (copy enclosed) (also available on the Patent Office website

at http://www.uspto.gov/web/offices/dcom/bpai/bpai_all.htm as Action No. fd980119.pdf.)

Similarly, the interaction between a cold-seal cohesive, as presently claimed, and the energy-cured layer of Curatolo would also be unpredictable if the two components were in contact with one another when applied to a film and wound up in a roll. This is because, as far as Applicants are aware, no one had ever before them tested the release properties of an energy-cured coating with respect to a cohesive.

One skilled in the art would not expect to achieve the same results when using an energy-cured layer as a release coating for a cohesive as one would obtain when using an energy-cured layer as a release coating for the adhesives of Wilkie because cohesives and adhesives have different chemical and bonding properties. (Suppl. Huffer Decl. ¶ 11.) Thus, based on a fair reading of Curatolo and the other references of record, one skilled in the art would not have an appreciation that an energy-cured coating (with or without a reacted-in slip agent) would be useful as a release layer for a cold-seal cohesive. (Suppl. Huffer Decl. ¶ 11.) Moreover, even if one skilled in the art were considering the use of an energy-cured coating as a release layer for a cold-seal cohesive, a reading of Curatolo would not provide the skilled artisan with a reasonable expectation of success in using it for that purpose. Instead, because of the differences in the chemical and bonding properties between an adhesive and a cohesive, significant testing would be required to determine whether an energy-cured coating could be used as a release layer for the cohesive. (Suppl. Huffer Decl. ¶ 12.) For these reasons, Curatolo does not provide any suggestion or motivation to apply an energy-cured coating to the film of Wilkie for use as a release layer.

Instead, it is believed that the Official Action inadvertently relied on impermissible hindsight to piece together the elements of the invention using the Applicants' own disclosure as

a roadmap. The use of hindsight is tempting because, in light of the Applicants' disclosure, it may seem that incorporation of the energy-cured coating of Curatolo would represent a simple modification to the Wilkie film. However, a proper obviousness analysis requires the difficult but critical step of casting the mind back to the time the invention was made. It is this requirement that guards against entry into the "tempting but forbidden zone of hindsight". *In re Dembicza*k, 50 USPQ2d 1614, 1616-17 (Fed Cir 1999).

In *Dembicza*k, the Examiner rejected claims directed to orange garbage bags that were printed with facial indicia to make them look like decorative pumpkins as obvious over references that individually showed (1) conventional garbage bags and (2) paper bags decorated to resemble pumpkins. Noting that there was no evidence of a suggestion or motivation to combine the references, the Court of Appeals for the Federal Circuit reversed the rejection. In doing so, the Court noted that the step of casting the mind back to the time of the invention and using only the prior art and the then-accepted wisdom in the field is "especially important in the case of less technologically complex inventions, where the very ease with which an invention can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'" 50 USPQ2d at 1617.

The Court made clear that the "best defense against the subtle but powerful attraction of hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *Id.* The evidence of a suggestion, teaching or motivation to combine references can come from a number of sources; but the range of sources available "does not diminish the requirement for actual evidence." *Id.*

The Office Action alleges that a proper motivation for using the energy-cured coating of Curatolo in the film of Wilkie is provided by passages in Curatolo discussing environmental

concerns and printability. However, the mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990); see also, MPEP § 2143.01. The Applicants acknowledges that the Curatolo coating is described as being environmentally friendly and that the patent discusses printability. The relevant inquiry, however, is whether or not the references suggest the desirability of the claimed combination. Neither of the cited passages, nor any other passage in Curatolo or any other reference of record, suggests any advantage to using an energy-cured coating in combination with a cold-seal cohesive. It is the combination of these and other elements that is presently claimed. Thus, although Curatolo may provide a motivation to use an energy-cured release coating on films generally, no reference of record suggests the desirability of providing such a coating in combination with a cold-seal cohesive.

In sum, there is simply no disclosure or suggestion in Curatolo or any other reference of record that an energy-cured coating could serve as an effective release layer for a cold-seal cohesive. Nor is there any other suggestion that it would be desirable to provide them in combination. As such, the combined teachings of Wilkie and Curatolo do not describe or suggest a packaging material having a substrate with a cold-seal cohesive on one side and an energy-cured release layer on the other side.

Pike is cited for the proposition that it would have been obvious to use rubber in a cold-seal coating, and that such coatings are used on packaging films for candy and other temperature sensitive products. Like the references discussed above, Pike provides no motivation to provide an energy-cured coating in combination with a cold-seal cohesive, and otherwise fails to cure the deficiencies of the theoretical combination of Wilkie and Curatolo with respect to the

independent claims. Because the theoretical combination of Wilkie, Curatolo and Pike does not describe or suggest the elements of claims 1, 10, 27 and their dependent claims, it is respectfully submitted that the claims are patentable thereover, and requested that the rejection under 35 U.S.C. § 103 be reconsidered and withdrawn.

Double Patenting

Claims 1-19 and 27 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting over U.S. Pat. App. No. 10/794,100 (“the ‘100 application”) in combination with Wilkie. As explained in the Applicants’ May 2 response, the ‘100 application has been expressly abandoned. A copy of the express abandonment was submitted with the Applicants’ prior response. In light of the abandonment, the double-patenting rejection should be withdrawn.

Claims 1-19 and 27 have also been provisionally rejected under the doctrine of obviousness-type double patenting over co-pending U.S. Pat. App. No. 10/702,980 (“the ‘980 application”). The ‘980 application is an involuntary divisional application of the present application, and was filed after an Office Action restricting method claims 20-24 out of this application. The restricted method claims remain pending in the ‘980 application. Because the ‘980 application is an involuntary divisional application, the double patenting rejection should be withdrawn. MPEP § 804.

Conclusion

For the reasons set forth above, it is respectfully requested that all of the rejections and objections set forth in the Office Action be reconsidered and withdrawn. It is respectfully submitted that the application is now in condition for allowance, which action is earnestly solicited. If the Examiner believes that further minor amendments or correction as to matters of

form will expedite allowance, the Examiner is invited to telephone the Applicants' undersigned representative.

Respectfully submitted,



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